Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 171-184 (canceled).

185. (Previously presented) An electrokinetic device comprising:

a solid substrate, wherein the solid substrate comprises a fluid path formed in the solid substrate;

a plurality of pumping conduits in the fluid path, each having a first end and a second end and comprising a porous dielectric material;

a first electrode, wherein the first electrode is in electrical communication with the first end of each of the pumping conduits when the fluid path contains a transport fluid in which electroosmotic flow can be induced;

a plurality of conducting conduits in the fluid path, each having a first end and a second end, wherein the first end of each of the conducting conduits is in fluid communication with the second end of one of the pumping conduits;

a second electrode in electrical communication with the second end of each of the pumping conduits when the fluid path contains the transport fluid; and

a cover on the solid substrate which seals the fluid path.

Claim 186 (canceled).

187. (Currently amended) ~~The device of claim 171~~ An electrokinetic device comprising:

a solid substrate, wherein the solid substrate comprises a fluid path formed in the solid substrate;

a first pumping conduit in the fluid path having a first end and a second end, said first pumping conduit comprising a porous dielectric material, wherein the porous dielectric material of the first pumping conduit comprises a non-polar

polymeric surface with an ionic material adsorbed thereon, the ionic material having a hydrophobic end and a charged end, wherein the hydrophobic end of the ionic material is adsorbed onto the non-polar polymeric surface, the charged end of the ionic material thereby providing a charged site on the non-polar polymeric surface;

a first electrode, wherein the first electrode is in electrical communication with the first end of the first pumping conduit when the fluid path contains a transport fluid in which electroosmotic flow can be induced;

a first conducting conduit having a first end and a second end, wherein the first end of the first conducting conduit is in electrical communication with the second end of the first pumping conduit at a first junction when the fluid path contains the transport fluid;

a second electrode in electrical communication with the second end of the first pumping conduit and with the first end of the first conducting conduit at the first junction when the fluid path contains the transport fluid; and

a cover on the solid substrate which seals the fluid path.

188. (Previously presented) The device of claim 187, wherein the ionic material is a surfactant.

189. (Previously presented) The device of claim 187, wherein the non-polar polymeric surface comprises a polymer material selected from the group consisting of polyethylene and polypropylene.

190. (Previously presented) The device of claim 187, wherein the porous member comprises packed particles.

191. (Currently amended) ~~The device of claim 185~~ An electrokinetic device comprising:

a solid substrate, wherein the solid substrate comprises a fluid path formed in the solid substrate;

a plurality of pumping conduits in the fluid path, each having a first end and a second end and comprising a porous dielectric material;

a first electrode, wherein the first electrode is in electrical communication with the first end of each of the pumping conduits when the fluid path contains a transport fluid in which electroosmotic flow can be induced;

a plurality of conducting conduits in the fluid path, each having a first end and a second end, wherein the first end of each of the conducting conduits is in fluid communication with the second end of one of the pumping conduits;

a second electrode in electrical communication with the second end of each of the pumping conduits when the fluid path contains the transport fluid; and

a cover on the solid substrate which seals the fluid path,

wherein the porous dielectric material of at least one of the pumping conduits comprises a non-polar polymeric surface with an ionic material adsorbed thereon, the ionic material having a hydrophobic end and a charged end, wherein the hydrophobic end of the ionic material is adsorbed onto the non-polar polymeric surface, the charged end of the ionic material thereby providing a charged site on the non-polar polymeric surface.

192. (Previously presented) An electrokinetic device comprising:

(a) a conduit; and

(b) a porous member within the conduit, the porous member comprising a non-polar polymeric surface with an ionic material adsorbed thereon, the ionic material having a hydrophobic end and a charged end, wherein the hydrophobic end of the ionic material is adsorbed onto the non-polar polymeric surface, the charged end of the ionic material thereby providing a charged site on the non-polar polymeric surface.

193. (Previously presented) The device of claim 192, wherein the ionic material is a surfactant.

194. (Previously presented) The device of claim 192, wherein the non-polar polymeric surface comprises a polymer material selected from the group consisting of polyethylene and polypropylene.

195. (Previously presented) The device of claim 192, wherein the porous member comprises packed particles.